

CLAIMS

1. Method for applying a layer of a second material to a layer of a nanocrystalline first material, comprising the steps of

(i) providing a layer of a nanocrystalline first material
5 on a horizontal substrate (3),

(ii) providing a liquid (12) containing the second material,

(iii) providing a tubular dispensing means (2) to be disposed horizontally and provided with lateral outlet
10 openings,

(iv) disposing the dispensing means (2) above the layer of nanocrystalline material, and

(v) displacing the dispensing means (2) and the layer of nanocrystalline material relative to each other in lateral
15 horizontal direction of the dispensing means (2), while simultaneously supplying the liquid (12) with the second material to the dispensing means (2).

2. Apparatus (1) for applying a layer of a second material to a layer of a nanocrystalline first material in
20 accordance with a method as claimed in claim 1, comprising a tubular dispensing means (2) to be disposed horizontally and provided with lateral outlet openings, a liquid container (5) and conduit means (4, 9, 10) for carrying liquid (12) from the liquid container (5) to the dispensing means (2).

25 3. Apparatus (1) as claimed in claim 2, characterized in that it is provided with displacing means (3, 7) for displacing the dispensing means (2) and the layer of nanocrystalline material relative to each other in lateral horizontal direction of the dispensing means (2).

30 4. Apparatus (1) as claimed in claim 3, characterized in that the displacing means comprise a carrier (3) displaceable in horizontal direction relative to the dispensing means (2) for carrying and displacing a layer of nanocrystalline material in lateral direction relative to the dispensing

means (2).

5. Apparatus (1) as claimed in either of the claims 3-4, **characterized in that** the displacing means comprise an XY table.

5 6. Apparatus (1) as claimed in any of the claims 2-5, **characterized in that** it is provided with heating means (8) for heating a layer of a nanocrystalline material during performing of the method.

7. Apparatus (1) as claimed in any of the claims 2-6,
10 **characterized in that** the tubular dispensing means (2) is connected at a first outer end to a first liquid supply line (4) and is closed at a second outer end.

8. Apparatus (1) as claimed in any of the claims 2-6, **characterized in that** the tubular dispensing means is
15 connected at a first outer end to a first liquid supply line, and is connected at a second outer end to a liquid circulation line or a second liquid supply line.

9. Apparatus (1) as claimed in any of the claims 2-8, **characterized in that** the lateral outlet openings are
20 provided in the top side of a horizontally disposed tubular dispensing means (2).

10. Apparatus (1) as claimed in any of the claims 2-9, **characterized in that** the tubular dispensing means (2) has a circular outer periphery in vertical cross-section.

25 11. Apparatus (1) as claimed in any of the claims 2-10, **characterized in that** the conduit means comprise a liquid metering pump (9).